

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

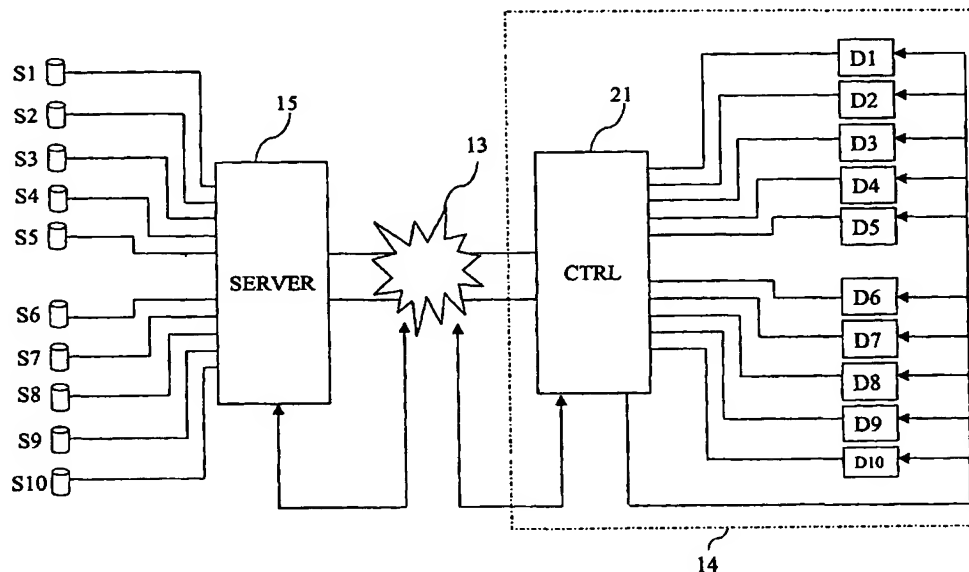
(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
11 March 2004 (11.03.2004)

PCT

(10) International Publication Number
WO 2004/021668 A1

- (51) International Patent Classification⁷: H04L 29/06, H04N 7/24, 7/26
- (21) International Application Number: PCT/IB2003/003766
- (22) International Filing Date: 21 August 2003 (21.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 02292121.7 28 August 2002 (28.08.2002) EP
- (71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GENTRIC, Philippe [FR/FR]; 156 Boulevard Haussmann, F-75008 Paris (FR). DELAHAYE, Nicolas [FR/FR]; 156 Bd Haussmann, F-75008 PARIS (FR). RAMANZIN, Yves [FR/FR]; 156 Bd Haussmann, F-75008 PARIS (FR).
- (74) Agent: CHAFFRAIX, Jean; Société Civile SPID, 156 Boulevard Haussmann, F-75008 Paris (FR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF STREAMING MULTIMEDIA DATA



(57) Abstract: The invention relates to a method of streaming multimedia for providing seamless stream switching. The method consists in streaming multimedia data from a server (15) to a client (14) over a network (13) having a variable bandwidth. The client is intended to decode a subset of streams within a set of streams having various predetermined bit rates. The decoded subset of streams has bit rates compatible with the network bandwidth. The method comprises the steps of configuring the client so that the client can decode all the streams within the set of streams, playing all the streams within the set of streams and muting all the streams within the set of streams, except the subset of streams.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/06 H04N7/24 H04N7/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 45372 A (BRITISH TELECOMM ; JACOBS RICHARD JAMES (GB); NILSSON MICHAEL ERLIN) 6 June 2002 (2002-06-06) page 5, line 4 - line 18 page 6, line 9 - line 17 page 7, line 5 - line 32 page 9, line 23 - line 33 ---	1-8
X	GB 2 367 219 A (VINTAGE GLOBAL) 27 March 2002 (2002-03-27) figures 1-5 page 4, paragraph 1 - page 5, paragraph 3 page 9, paragraph 2 - paragraph 4 page 10, paragraph 4 page 11, paragraphs 3-5 --- -/-	1-8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

19 November 2003

Date of mailing of the international search report

23/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel: (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Megalou, M

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 986 265 A (VICTOR COMPANY OF JAPAN) 15 March 2000 (2000-03-15) paragraphs '0018!', '0019!' -----	1,3,8
P,X	WO 03 065683 A (RAMANZIN YVES ;GENTRIC PHILIPPE (NL); KONINKL PHILIPS ELECTRONICS) 7 August 2003 (2003-08-07) page 3, line 19 -page 4, line 5 page 7, line 17 - line 23 figure 5 -----	1-8

INTERNATIONAL SEARCH REPORT

Info on patent family members

Information

Location No

PCT/IB 03/03766

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0245372	A	06-06-2002	AU 2209702 A CA 2428325 A1 EP 1338131 A2 WO 0245372 A2	11-06-2002 06-06-2002 27-08-2003 06-06-2002
GB 2367219	A	27-03-2002	NONE	
EP 0986265	A	15-03-2000	SG 77650 A1 EP 0986265 A2 JP 2000101537 A	16-01-2001 15-03-2000 07-04-2000
WO 03065683	A	07-08-2003	WO 03065683 A1	07-08-2003